PATENT ABSTRACTS OF JAPAN

(11)Publication number : **2005-066247**
(43)Date of publication of application : **17.03.2005**

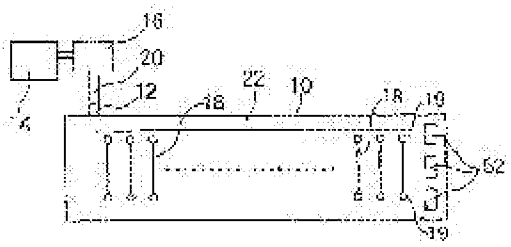
(51)Int.Cl. **A61H 7/00**

(21)Application number : **2003-332431**
(22)Date of filing : **20.08.2003**

(71)Applicant : **BESUTEKKU:KK**
(72)Inventor : **HARA TAKUJI**

(54) **AIR BAG**

(57)Abstract:
PROBLEM TO BE SOLVED: To provide an air bag capable of performing air massage effectively by achieving smooth supply of air to the air bag and also capable of discharging air efficiently from the air bag.
SOLUTION: The air bag comprises a bag body 10 and an air circulation blockade preventing means 22 provided within the bag body for preventing blockade of air circulation during supply of air to the bag body or discharge of air from the bag body to the outside. The supply or discharge of air to or from the bag body is performed by a pump 14 and valves 42, 44 and 46.



CLAIMS

[Claim(s)]

[Claim 1]

An air-bag object which allocated an air circulation interception prevention means for preventing interception of air circulation on the occasion of a bag body, a pump for

supplying air to this bag body, and discharge of air from air supply and this bag body to said bag body to the exterior in said bag body.
[Claim 2]
The air-bag object according to claim 1 said bag body's having equipped the vertical and horizontal end side with air supply and an ejecting means, and allocating said air circulation interception prevention means in a longitudinal direction along with a termination of Werder which is an attachment side of this air supply and ejecting means at least, and was provided with a predetermined interval and length.
[Claim 3]
The air-bag object according to claim 2, wherein said air circulation interception prevention means is ******(ed) by all the peripheries along with a termination of Werder of said bag body.
[Claim 4]
The air-bag object according to claim 2, wherein said air circulation interception prevention means comprises a column body, a square pillar object, or a hollow shell.
[Claim 5]
The air-bag object according to claim 4, wherein said air circulation interception prevention means is made from an elastic member.
[Claim 6]
The air-bag object according to claim 2, wherein said air circulation interception prevention means allocates an elastic member and is constituted near the end position of Werder in said hollow shell.
[Claim 7]
The air-bag object according to claim 2, wherein said air circulation interception prevention means is filled up with air in said hollow shell and is constituted.

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[Field of the Invention]
[0001]
This invention relates to the air-bag object for being wound around an abdomen, a knee region, or the leg, and massaging with air.
[Background of the Invention]
[0002]
The air-bag object for being wound around an abdomen, a knee region, or the leg, and

massaging with air conventionally, is known. When an air-bag object was put in inside trousers and an abdomen was massaged with an air-bag object, since it was pushed by the belt of trousers and air did not fully enter, the air-bag object was not able to massage an abdomen effectively.

[0003]

After the end of a massage, when discharging outside the air filled up with the mounting state into the air-bag object, an air-bag object cannot fully discharge air outside from an air-bag object with eclipse ****** with **** by the belt of trousers. In particular, if Werder processing is carried out at the predetermined intervals, the air-bag object will have bent on the air-bag object near [the] the termination, and circulation of air will no longer be carried out fully to it. As a result, the air supply to the air-bag object became insufficient, and the efficient pneumomassage could not be performed, and there was a fault, like discharge of the air from an air-bag object takes time and effort.

[Description of the Invention]

[Problem(s) to be Solved by the Invention]

[0004]

This invention was made in view of the conventional fault, and the purpose of this invention, It is in providing the air-bag object which the pneumomassage out of which an effect with an air-bag object comes is effectively made since the air supply to an air-bag object can be performed smoothly, and can discharge the air from the air-bag inside of the body efficiently.

[Means for Solving the Problem]

[0005]

An air-bag object concerning claim 1 allocated an air circulation interception prevention means for preventing interception of air circulation on the occasion of a bag body, a pump for supplying air to this bag body, and discharge of air from air supply and this bag body to said bag body to the exterior in said bag body.

[0006]

An air-bag object concerning claim 2 equips the vertical and horizontal end side with air supply and an ejecting means, and said bag body said air circulation interception prevention means, It allocated in a longitudinal direction along with a termination of Werder which is an attachment side of this air supply and ejecting means at least, and was provided with a predetermined interval and length.

[0007]

As for an air-bag object concerning claim 3, said air circulation interception prevention means is allocated by all the peripheries along with a termination of Werder of said bag

body.
[0008]
As for an air-bag object concerning claim 4, said air circulation interception prevention means comprises a column body, a square pillar object, or a hollow shell.
[0009]
As for an air-bag object concerning claim 5, said air circulation interception prevention means is made from an elastic member.
[0010]
As for an air-bag object concerning claim 6, said air circulation interception prevention means allocates an elastic member near the end position of Werder in said hollow shell.
[0011]
Said air circulation interception prevention means is filled up with air in said hollow shell, and an air-bag object concerning claim 7 is constituted.
[Effect of the Invention]
[0012]
According to the air-bag object concerning this invention, since the air supply to an air-bag object can be performed smoothly, the pneumomassage out of which an effect with an air-bag object comes is made effectively, and the air from the air-bag inside of the body can be discharged efficiently.
[Best Mode of Carrying Out the Invention]
[0013]
Hereafter, the desirable embodiment of this invention is described with reference to an accompanying drawing.
Drawing 1 shows the schematic diagram of the air-bag object for abdominal pneumomassage. In this figure, the numerals 10 are the bag bodys for being filled up with the air made of urethane resin of the Naokata type who has predetermined length, and the bag body 10 equips the end with the end connection 12 which are the air supply and the ejecting means for connecting with a pump. The numerals 14 are pumps and supply air in the bag body 10 via the valve control device 16. The air-bag object 10 has performed Werder processing 18 which extends to a lengthwise direction by predetermined length with a predetermined interval, in order to divide the room of air to a bag body. Werder is carried out termination 19 with predetermined length so that an upper bed side may reach by the longitudinal direction of a bag body or air current passes may be formed in the lower end side. Air supply and the ejecting means 12 are connected to the valve control device 16 and the pump 14 via the communicating tube 20.

[0014]
The air circulation interception prevention means 22 is allocated in the air current passes in which the upper bed side of an air-bag object reached or which were formed in the lower end side. The air circulation interception prevention means 22 is allocated along with the longitudinal direction of the bag body of the side which provided the end connection which are air supply and an ejecting means. That is, the air circulation interception prevention means 22 is allocated in a longitudinal direction along with the termination 19 of Werder in drawing 1 by one side of the bag body of the side which formed the end connection 12.
[0015]
The air circulation interception prevention means 22 is allocated in a longitudinal direction along with the termination 19 of Werder in drawing 2 by the bag body side which counters the side which was allocated in the longitudinal direction along with the termination 19 of Werder by one side of the bag body of the side which formed the end connection 12, and formed the end connection 12.
[0016]
Furthermore, the air ****** prevention means 22 is allocated by all the peripheries of a bag body along with the termination of the upper and lower sides of Werder in drawing 3.
[0017]
The air ****** prevention means 22 comprises the column body 24 (refer to drawing 4 (a)) and the square pillar object 26 (refer to drawing 4 (b)), and a column body and a square pillar object are made from the spring material provided with rigidity. The air ****** prevention means 22 comprises the hollow shell 28, near Werder in a hollow shell, allocates the elastic member 30 and is constituted (refer to drawing 4 (c)). An air ****** prevention means is filled up with air in the hollow shell 28 which closed one end and connected the communicating tube 34 to the other end, and is constituted (refer to drawing 4 (d)).
[0018]
In the case of the column body which the air ****** prevention means 22 mentioned above, a square pillar object, and the hollow shell which allocates an elastic member near Werder, the valve control device 16 is constituted as shown in drawing 5 (a). The valve control device 16 is provided with the valves 44 and 46 allocated in the air supply and the exhaust passage 40 linked to the air supply and the ejecting means 12 of a bag body, the air external exhaust passage 42 which discharges the air of a bag body outside, and each way in this figure. ONOFU [the valve 44 controls air supply and discharge to an air-bag object, and the valve 46 controls the discharge to the exterior of

the air of the air-bag inside of the body, and / these valves / be / it / at a predetermined sequence]. That is, where the valve 46 is closed, the valve 44 is opened, supply introduction of the air from a pump is carried out, and an air-bag object is filled up with air in a bag body. After the end of the pneumomassage, the valve 44 and the valve 46 are opened and the air of a bag body is discharged outside.
[0019]
The air ****** prevention means 22 closes one end, and when it is filled up with air in the shell in the air which connected the other end to the communicating tube 34 and is constituted, the valve control device 16 is constituted as shown in drawing 5 (b). A valve control device is provided with the following in this figure.
Air supply and exhaust passage 40 to a bag body
Air supply ON and exhaust passage 48 to the shell as an air ****** prevention means
Air external exhaust passage 42 which discharges the air of a bag body and a shell outside.
The valves 44, 46, and 50 allocated in each way, respectively.
The valve 44 controls air supply and discharge to an air-bag object, and the valve 46 controls the discharge to the exterior of the air in the air-bag inside of the body and a shell, and the valve 48 controls air supply and discharge to an air-bag object. ONOFU [these valves 44, 46, and 50 / be / it / at a predetermined sequence]. That is, where the valve 46 is closed, the valve 44 and the valve 50 are opened, the air from a pump is supplied to a bag body and the shell 22, and an air-bag object and a hollow shell are filled up with air. After the end of the pneumomassage, the valve 44 and the valve 46 are opened, the air of a bag body is discharged outside, the valve 50 and the valve 46 are opened after that, and the air in the shell 22 is discharged outside.
[0020]
Although the pump can use various kinds of pumps, it is preferred to use a butterfly type pump, for example in respect of the formation of Cong Park. And a pump and a valve control device are inserted into the storage bag provided in one side of an air-bag object. An air-bag object can be easily attached to an abdomen, a knee region, or the leg by forming Velcro 52 in one side of the end of an air-bag object.
[0021]
Drawing 6 is a schematic diagram of the finger massage air glove for rehabilitation which allocated the air ****** prevention means 22. In this figure, the air ****** prevention means 22 is allocated in a longitudinal direction along with the termination 19 of Werder which extends from a finger part to predetermined length towards a wrist.
[0022]

Drawing 7 is the schematic diagram of a knee or the air-bag object for a massage of ****** which allocated the air ****** prevention means 22. The air ****** prevention means 22 is provided with the same composition as the air-bag object for the pneumomassage of the abdomen mentioned above.

[Industrial applicability]

[0023]

Parts, such as an abdomen of the body, the leg, and an indirect part, are applied to the air-bag object applied to this invention as mentioned above by massage with air with air.

[Brief Description of the Drawings]

[0024]

[Drawing 1]Drawing 1 is a schematic diagram showing the air-bag object concerning this invention.

[Drawing 2]Drawing 2 is a schematic diagram showing other air-bag objects concerning this invention.

[Drawing 3]Furthermore drawing 3 starts this invention, it is a schematic diagram showing other air-bag objects.

[Drawing 4 (a)] Drawing 4 (a) is a schematic diagram of an air ****** prevention means.

[Drawing 4 (b)] Drawing 4 (b) is a schematic diagram of other air ****** prevention means.

[Drawing 4 (c)] Drawing 4 (c) is a schematic diagram of the air ****** prevention means of further others.

[Drawing 4 (d)] Drawing 4 (d) is a schematic diagram of the air ****** prevention means of further others.

[Drawing 5 (a)] Drawing 5 (a) is a schematic diagram showing the air-bag object provided with the valve control device concerning this invention. It is a schematic diagram.

[Drawing 5 (b)] Furthermore drawing 5 (b) starts this invention, it is a schematic diagram showing the air-bag object provided with other valve control devices.

[Drawing 6)] Drawing 6 is a schematic diagram showing the finger massage air glove for rehabilitation.

[Drawing 7)] Drawing 7 is a schematic diagram showing a knee and the air-bag object for a massage of ******.

[Description of Notations]

[0025]

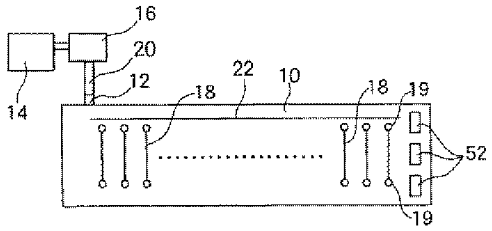
10; air-bag object

12; air supply and an ejecting means

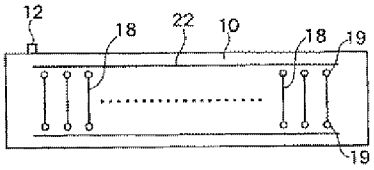
14; pump
16; valve control device
18; Werder
19; the termination of Werder
20; communicating tube
22; air circulation interception prevention means
24; column body
26; square pillar object
28; hollow body
30; elastic member
40, 48; air supply and exhaust passage in a valve control device
42; air external exhaust passage in a valve control device
44, 46, 50; valve

DRAWINGS

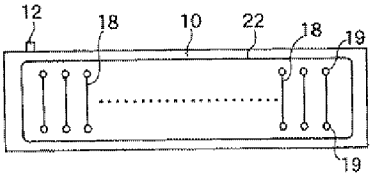
[Drawing 1]



[Drawing 2]

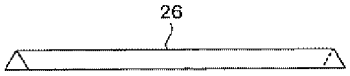


[Drawing 3]

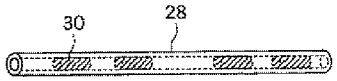


[Drawing 4 (a)]

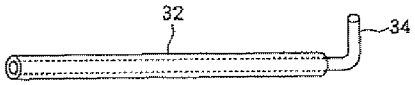
[Drawing 4 (b)]



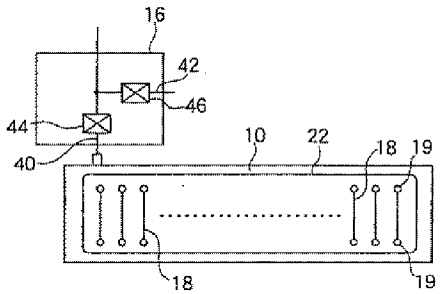
[Drawing 4 (c)]



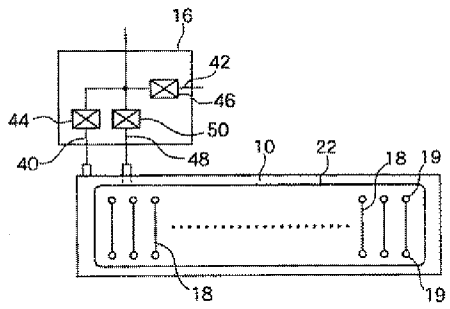
[Drawing 4 (d)]



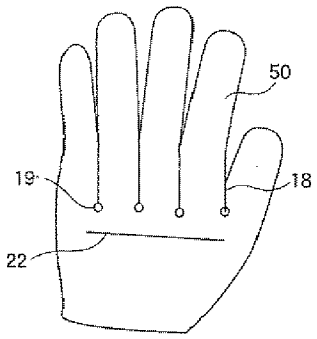
[Drawing 5 (a)]



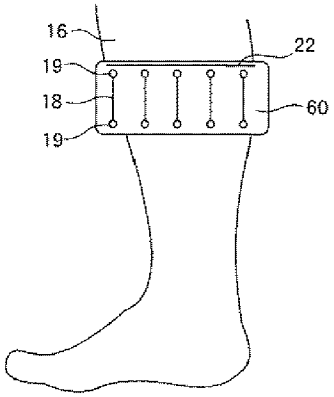
[Drawing 5 (b)]



[Drawing 6]



[Drawing 7]



Filing info	Patent 2003-332431 (20.8.2003)
Publication info	2005-066247 (17.3.2005)
Detailed info of application	Kind of examiner's decision(Rejection)

Date of request for examination	(21.8.2006)
Date of sending the examiner's decision of rejection	(2.12.2008)
Renewal date of legal status	(23.1.2009)

Legal status information includes 8 items below. If any one of them has any data, a number or a date would be indicated at the relevant part.

1. Filing info(Application number,Filing date)
2. Publication info(Publication number,Publication date)
3. Detailed info of application
   * Kind of examiner's decision
   * Kind of final decision
   * Date of final decision in examination stage
4. Date of request for examination
5. Date of sending the examiner's decision of rejection(Date of sending the examiner's decision of rejection)
6. Appeal/trial info
   * Appeal/trial number,Date of demand for appeal/trial
   * Result of final decision in appeal/trial stage,Date of final decision in appeal/trial stage
7. Registration info
   * Patent number,Registration Date
   * Date of extinction of right
8. Renewal date of legal status

For further details on Legal-Status, visit the following link.PAJ help(1-5)